

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A data translation system for interacting with data stored in a data store in a base system language and that is queryable using a specified query format, the data translation system facilitating user interaction with the stored data using the base system language or any of one or more other different languages, the base system language and the one or more other different languages each corresponding to a language that humans use to verbally transfer information to one another, the data translation system comprising:

an interface component that receives requests user queries for stored data from a user, the queries receivable in the base system language and any of the one or more other different languages, the queries also receivable in the specified query format and any of a plurality of different query formats;

a translation component configured to receive user queries from the user interface and pass the received user queries to a query conversion component for conversion;

a query conversion component, the query conversion component for converting received user queries into converted user queries in the specified query format in the base system language, including:

receiving a user query from the translation component;

converting the received user query from any of the one or more other different languages into the base system language;

converting the received user query in the base system language into the specified query format in accordance with query definition rules that specify query syntax and semantic information for the specified query format subsequent to converting the received user query into the base system language; and

returning the converted user query back to the translation component;

wherein the translation component is further configured to pass the converted user query to a query engine;

a query engine configured to receive a converted query from the translation component,

submit the converted query to the data store, receive a query response containing stored data responsive to the converted query from the data store, the stored data in the base system language, and pass query response data back to the translation component;

[[a]]wherein the translation component is further configured to receive the query response from the query engine and translate the stored data into any of the one or more other languages in accordance with that retrieves data in accordance with the requests and returns the data to the user in a specified language, the translation component comprising an inference component that, upon retrieval, translates result data into one or more languages, the inference component including a context analyzer component that provides an accurate translation that conforms to proper punctuation, syntax and semantics of the specified other languages, translation including; and

determining any of the one or more other different languages that the stored data is to be translated into, and for each of the one or more determined other different languages:

referring to language specific translation tables to statically translate portions of the stored data; and

for any portions of the stored data for which static translation is insufficient, dynamically translating the portions of the stored data through reference to an inference component;

wherein the translation component is further configured to provide the stored data in the one or more other determined languages to the interface component.

wherein the user is notified of a degree of confidence that the translation is accurate.

2. (Previously Presented) The system of claim 1, the interface component comprising a language identification component that determines the specified language of a user.

Claim 3. (Canceled).

4. (Previously Presented) The system of claim 1, the request is a structured query in the user's preferred language.

5. (Previously Presented) The system of claim 3, the request is a natural language request.

6. (Previously Presented) The system of claim 1, the translation component comprises:

one or more translation tables; and

a mapping component that maps retrieved data to its corresponding translation in a translation table.

7. (Previously Presented) The system of claim 6, the translation tables are set up by a database administrator.

8. (Cancelled)

9. (Previously Presented) The system of claim 1, the inference component including a dictionary component that translates data.

10. (Currently Amended) The system of claim 1, the wherein the inference component includes a context analyzer that receives metadata associated with the query response result data.

11. (Currently Amended) The database translation system of claim 1, wherein A database translation system comprising:

an interface component to receive queries;

the data store stores analytical data in a database; and

the a-translation component that retrieves is configured to convert the analytical data into any of the one or more languages from a database in accordance with a query and translates, upon retrieval, the resulting data into one or more user languages, the translation component comprising an inference component that dynamically translates result data into one or more languages, the inference component including a context analyzer component that provides an accurate translation that conforms to proper punctuation, syntax, and semantics of the user language; and

wherein a user is notified of a degree of confidence that the translation is accurate.

12. (Currently Amended) The system of claim 11, wherein the queries are specified in a one of the other different languages than a base language associated with the database.

13. (Previously Presented) The system of claim 11, the queries are specified in natural language.

14. (Previously Presented) The system of claim 11, the database is a multidimensional database.

Claims 15-16. (Canceled).

17. (Currently Amended) The system of claim 11, wherein the translation component comprises an inference component, which includes a dictionary component that dynamically translates data.

18. (Previously Presented) The system of claim 11, further comprising a sort component that receives collation information from a user a sorts resulting data in accordance with the collation information.

19. (Previously Presented) The system of claim 18, the collation information includes the language to be used for sorting.

20. (Currently Amended) The system of claim 1, wherein An online analytical processing (OLAP) system comprising:

an interface component to receive queries;

[[a-]]the translation component that is configured to translate retrieves data and metadata from a multidimensional database in accordance with a received user query, and, upon retrieval, translates resulting data and metadata from a system base language into one or more user languages by utilizing an inference component that translates result data, upon retrieval, into one or more languages, the inference component including a context analyzer component that provides an accurate translation that conforms to proper punctuation, syntax, and semantics of the user language; and

wherein a user is notified of a degree of confidence that the translation is accurate.

21. (Currently Amended) The system of claim 20, wherein the translation component maps resulting data and metadata to a translation table to produce translated data and metadata.

22. (Currently Amended) A computer-implemented method of querying data stored in a data store in a base system language and that is queryable using a specified query format, a database the method comprising:

receiving a language selection, the language selection specifying a language from among one or more other different languages, the language selection being an indication that queries are to be entered and data presented in the specified language, the specified language corresponding to a language that humans use to verbally exchange information;

receiving a query in the specified language and in a query format other than the specified query format;

converting the received query into the specified query format in the base system language, the base system language corresponding to a second different language that humans used to verbally exchange information, including:

converting the received query from the specified language into the base system language; and

converting the received query in the base system language into the specified query format in accordance with query definition rules that specify query syntax and semantic information for the specified query format subsequent to converting the received user query into the base system language;

submit the converted query to the data store;

retrieving data from a database in accordance with the query;

receiving a query response containing stored data responsive to the converted query from the data store, the stored data in the base system language;

translating the stored data from the base system language to the specified language, including:

referring to a language specific translation table to statically translate portions of the stored data; and

for any portions of the stored data for which static translation is insufficient, dynamically translating the portions of the stored data through reference to an inference component; and

dynamically translating the data, upon retrieval, into the selected language;

utilizing context information to provide an accurate translation that conforms to

proper punctuation, syntax, and semantics of the selected language; and
providing the stored data in the specified language to an interface,
notifying a user of a degree of confidence that the translation is accurate.

23. (Currently Amended) The computer-implemented method of claim 22, wherein the specified language is selected by a user selects a language by entering a query in a particular~~the specified language, the selected language being the particular language used to enter the query.~~

24. (Currently Amended) The computer-implemented method of claim 22, wherein translating the received stored data comprises retrieving metadata from a translation table, the metadata describing the stored data.

25. (Currently Amended) The computer-implemented method of claim 22, the data is translated dynamically translating the portions of the stored data through reference to an inference component comprises the inference component utilizing a dictionary.

26. (Currently Amended) The computer-implemented method of claim 22, wherein the query is a natural language query.

27. (Currently Amended) The computer-implemented method of claim 22, wherein the database data store is a multidimensional database.

28. (Previously Presented) A computer readable medium having stored thereon computer executable instructions for carrying out the computer-implemented method of claim 22.

Claim 29. (Canceled).

30. (Currently Amended) The computer-implemented method of claim 229, wherein the first query format is in a first language is selected from naming German, Spanish, Russian, French, and Chinese and the second query format is in a second base system language is English.

Claim 31. (Canceled).

32. (Currently Amended) The computer-implemented method of claim 229, wherein translating the result data referring to a language specific translation table to statically translate portions of the stored data comprises mapping data and meta-data to a the language specific translation table associated with the selected language.

33. (Currently Amended) The computer-implemented method of claim 229, further comprising sorting the translated stored data based on collation properties specified by a user.

Claims 34-41. (Canceled).